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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,757	02/13/2004	Frits Franciscus Carolus Groot	248775US6	5330

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

HAGEMAN, MARK

ART UNIT	PAPER NUMBER
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3653

NOTIFICATION DATE	DELIVERY MODE
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12/17/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/777,757

Applicant(s)

GROOT ET AL.

Examiner

Mark Hageman

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31 and 32 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13 and 16-300 is/are rejected.
- 7) ☒ Claim(s) 6, 14, 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-31-2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites, "wherein the axis of rotation of the at least one cam is spaced apart from the axis of tilt of the at least one cam." This renders the claim indefinite as it is not clear what the axis of tilt of the at least one cam actually is. It seems the claim should say "the axis of tilt of supporting surface" as it is the supporting surface and the attached platform that tilt as opposed to the cam which rotates to cause the tilting to occur. This is consistent with the first part of the claim which states "to tilt the supporting surface about an axis of tilt..." The claim has been treated with this understanding.

5. Claim 25 is indefinite for claiming both a method and device. As drafted claim 25 is dependant from claim 1 although claim 25 claims a method while claim 1 is a device. MPEP 2173.05(p) states, "A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112 second paragraph." This rejection can be overcome by canceling the claim or amending the claim so that it clearly sets forth method steps and does not refer back to claim 1. For example, a method of sorting products comprising, providing a device comprising "a plurality... (the language of claim 1 written out rather than included by reference), and using the device to sort products.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 25 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 25 is directed to neither a process nor a machine but rather embraces or overlaps the two different statutory classes of invention set for in 35 U.S.C. which is drafted so as to set forth statutory classes of invention in the alternative only. See MPEP, section 2173(p).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5, 7-10, 16-18, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,846,335 to Hartlepp.

Regarding claim 1, Hartlepp teaches a device for sorting products, comprising: a plurality of supporting units adjacently arranged along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to the conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element, see column 1, lines 12+ and figures 1, 2, 7, 8). The tilting mechanism comprises a drive device (174) and at least one cam (178) configured to be rotated by the drive device about an axis of rotation (unlabeled figures 7 and 8) extending parallel to the axis of tilt (unlabeled figures 7 and 8) when the cam moves within a path of camway (180, 200) so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, the axis of rotation is positioned spaced apart from said cam by a distance, and wherein the axis of rotation of the at least one cam is spaced apart from the axis of tilt of the at least one cam (figures 7-8).

Regarding claims 2 and 3, the support member comprises the camway and the camway extends substantially in a radial direction with respect to the axis of tilt, see figures 7-8.

Regarding claims 4, 5, 26, 27, and 30, the connecting lines between the axis of rotation and the cam on the one hand and the axis of tilt and the cam on the other hand include an angle ranging between 60 and 120 degrees with each other in both the neutral and extreme conditions more preferably between 80 and 100 degrees (figures 7 and 8) Examiner contends that at least one of the cams maintains the claimed orientation in both the neutral and extreme positions as one cam is moved to activate the tilting and the other remains in its original location.

Regarding claims 7-10 the angle of tilt of the support member between the neutral position and the extreme position ranges between 30 and 60 degrees (figure 8). The tilting mechanism comprises two cams, see figure 8, which are jointly rotatable about the axis of rotation, during which rotation on one side of the neutral position, one of the cams moves over one of the two camways, and during rotation on the other side of neutral position, the other one of the cams moves over the other one of the two camways (c7 lines 20+). The camways define a V-shape, see figures 7 and 8; the V-shape comprises an angle ranging from 30 to 60 degrees (figures 7 and 8).

Regarding claims 16-18, Hartlepp further teaches a supporting surface provided with supporting edges extending perpendicularly to the axis of tilt, see figures 1 and 2. The height of the supporting edge decreases from a halfway point of the edge towards

the ends thereof. The height of the supporting edges equals zero at the ends thereof, see figures 1 and 2.

Regarding claim 24, the reference teaches a sorting device further comprising a control device configured to simultaneously activate the tilting mechanism associated with at least two adjacent supporting units during joint support of the product by the respective surfaces (c8 lines 8+).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartlepp in view of Abildgaard. Hartlepp discloses all the limitations of the claim except drive device comprises and electric motor (17 and c13 lines 59+) for each supporting surface. Hartlepp utilized mechanically actuated levers rather than the motor. Abildgaard discloses the drive device comprises and electric motor (17 and c13 lines 59+) for each supporting surface. Because both Hartlepp and Abildgaard teach drive devices for tilting surfaces of conveyance tilt sorters, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to substitute the electric motor, as taught by Abildgaard, for the mechanical arrangement of Hartlepp to achieve the predictable result of actuating and driving the tilting mechanism

12. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartlepp in view of Polling.

Hartlepp teaches all of the features of the claimed invention except that the load carrying platforms of adjacent supporting units abut against each other. Polling, however, does teach this feature. Polling teaches a sorting conveyor wherein the load carrying platforms, 1, abut against each other, see figure 1a, each supporting surface, 3, comprising upper sides of a supporting element and of a bridging element, 4, which overlaps the supporting element at a first end thereof and which is movable in a direction parallel to the supporting surface with respect to the supporting element so as to retain mutual abutment of adjacent load carrying platforms through a curved section. The bridging element is movable in two degrees of freedom with respect to the supporting element, see figures 3 and 6.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention have modified Hartlepp to include the abutting carrying platforms, as taught by Polling, for the purpose of retaining mutual abutment of adjacent load carrying platforms through a curved section.

13. Claims 19-23, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartlepp.

Regarding claims 19 and 29, Hartlepp discloses the claimed invention except for the height of the supporting edges is at least 6mm, or at least 8mm, at least at a

position halfway the length of the supporting edges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the height of the supporting edge to at least 6mm or at least 8mm for the purpose of ensuring that the items conveyed on the supporting surface do not slide off the edge during conveyance, since it has been held that discovering an optimum values of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 20 and 28, Hartlepp discloses the claimed invention except for the radius of the upper sides of the supporting edges is maximally 8mm or maximally 6mm, at least at a position halfway the length of the supporting edges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the radius of the upper sides of the supporting edges to maximally 8mm or maximally 6mm for the purpose of ensuring that the items conveyed on the supporting surface do not slide off the edge during conveyance, since it has been held that discovering an optimum values of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 21, Hartlepp discloses the claimed invention except for the spacing between two adjacent supporting edges is between 10mm and 80mm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the spacing between two adjacent supporting edges is between 10mm and 80mm for the purpose of ensuring that the adjacent supporting surfaces have enough room to maneuver with respect to each other when the conveyor travels around curves, since it

has been held that discovering an optimum values of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 22 and 23, Hartlepp discloses the claimed invention except for the length of each supporting surface ranges between 300mm and 500mm or 500mm and 700mm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the length of each supporting surface ranges between 300mm and 500mm or 500mm and 700mm for the purpose of ensuring that the supporting surface are properly sized to fit the majority of items traveling on the sorting conveyor, since it has been held that discovering an optimum values of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

14. Claims 31 and 32 allowed.
15. Claims 6, 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

16. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Hageman whose telephone number is (571) 272-3027. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCH


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